



Supplemental Materials for

Quality of life in a real-world study of metastatic colorectal cancer patients treated with trifluridine/tipiracil (FTD/TPI)

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Supplemental Appendix 1: Rotterdam Symptom Checklist and Scoring Method

The Rotterdam Symptom Checklist measures the quality of life (QoL) specifically in cancer patients, covering the domains of physical symptom distress, psychological distress, activity level and overall global life quality. The RSCL includes 39 items and most items are given on a 4-point Likert-type scale with responses partitioned from “not at all” to “very much”. Each question refers to the impact on the patient’s QoL over the previous week. Higher scores (when reversing the activity level and overall valuation of life scale) represent greater QoL impairment.¹

In this questionnaire you will be asked about your symptoms. Would you please, for all symptoms mentioned, indicate to what extent you have been bothered by it, by circling the answer most applicable to you. The questions are related to the past week.

Example: Have you been bothered, during the past week, by

| | | | | |
|-----------|------------|-----------------|-------------|-----------|
| headaches | not at all | <u>a little</u> | quite a bit | very much |
|-----------|------------|-----------------|-------------|-----------|

Have you, during the past week, been bothered by

| | | | | |
|------------------|------------|----------|-------------|-----------|
| lack of appetite | not at all | a little | quite a bit | very much |
|------------------|------------|----------|-------------|-----------|

| | | | | |
|--------------|------------|----------|-------------|-----------|
| irritability | not at all | a little | quite a bit | very much |
|--------------|------------|----------|-------------|-----------|

| | | | | |
|-----------|------------|----------|-------------|-----------|
| tiredness | not at all | a little | quite a bit | very much |
|-----------|------------|----------|-------------|-----------|

| | | | | |
|----------|------------|----------|-------------|-----------|
| worrying | not at all | a little | quite a bit | very much |
|----------|------------|----------|-------------|-----------|

| | | | | |
|--------------|------------|----------|-------------|-----------|
| sore muscles | not at all | a little | quite a bit | very much |
|--------------|------------|----------|-------------|-----------|

| | | | | |
|----------------|------------|----------|-------------|-----------|
| depressed mood | not at all | a little | quite a bit | very much |
|----------------|------------|----------|-------------|-----------|

| | | | | |
|----------------|------------|----------|-------------|-----------|
| lack of energy | not at all | a little | quite a bit | very much |
|----------------|------------|----------|-------------|-----------|

| | | | | |
|---------------|------------|----------|-------------|-----------|
| low back pain | not at all | a little | quite a bit | very much |
|---------------|------------|----------|-------------|-----------|

| | | | | |
|-------------|------------|----------|-------------|-----------|
| nervousness | not at all | a little | quite a bit | very much |
|-------------|------------|----------|-------------|-----------|

| | | | | |
|--------|------------|----------|-------------|-----------|
| nausea | not at all | a little | quite a bit | very much |
|--------|------------|----------|-------------|-----------|

| | | | | |
|-----------------------------|------------|----------|-------------|-----------|
| despairing about the future | not at all | a little | quite a bit | very much |
|-----------------------------|------------|----------|-------------|-----------|

| | | | | |
|---------------------|------------|----------|-------------|-----------|
| difficulty sleeping | not at all | a little | quite a bit | very much |
|---------------------|------------|----------|-------------|-----------|

| | | | | |
|-----------|------------|----------|-------------|-----------|
| headaches | not at all | a little | quite a bit | very much |
|-----------|------------|----------|-------------|-----------|

| | | | | |
|----------|------------|----------|-------------|-----------|
| vomiting | not at all | a little | quite a bit | very much |
|----------|------------|----------|-------------|-----------|

| | | | | |
|-----------|------------|----------|-------------|-----------|
| dizziness | not at all | a little | quite a bit | very much |
|-----------|------------|----------|-------------|-----------|

| | | | | |
|---------------------------|------------|----------|-------------|-----------|
| decreased sexual interest | not at all | a little | quite a bit | very much |
|---------------------------|------------|----------|-------------|-----------|

| | | | | |
|---------|------------|----------|-------------|-----------|
| tension | not at all | a little | quite a bit | very much |
|---------|------------|----------|-------------|-----------|

| | | | | |
|---------------------------|------------|----------|-------------|-----------|
| abdominal (stomach) aches | not at all | a little | quite a bit | very much |
|---------------------------|------------|----------|-------------|-----------|

| | | | | |
|---------|------------|----------|-------------|-----------|
| anxiety | not at all | a little | quite a bit | very much |
|---------|------------|----------|-------------|-----------|

| | | | | |
|--------------|------------|----------|-------------|-----------|
| constipation | not at all | a little | quite a bit | very much |
|--------------|------------|----------|-------------|-----------|

| | | | | |
|---------------------------------|------------|----------|-------------|-----------|
| diarrhoea | not at all | a little | quite a bit | very much |
| acid indigestion | not at all | a little | quite a bit | very much |
| shivering | not at all | a little | quite a bit | very much |
| tingling hands or feet | not at all | a little | quite a bit | very much |
| difficulty concentrating | not at all | a little | quite a bit | very much |
| sore mouth/pain when swallowing | not at all | a little | quite a bit | very much |
| loss of hair | not at all | a little | quite a bit | very much |
| burning/sore eyes | not at all | a little | quite a bit | very much |
| shortness of breath | not at all | a little | quite a bit | very much |
| dry mouth | not at all | a little | quite a bit | very much |

A number of activities is listed below. We do not want to know whether you actually do these, but only whether you are able to perform them presently. Would you please mark the answer that applies most to your condition of the past week.

| | unable | only with help | without help, with difficulty | without help |
|--------------------------------|--------|----------------|-------------------------------|--------------|
| care for myself (wash etc.) | 0 | 0 | 0 | 0 |
| walk about the house | 0 | 0 | 0 | 0 |
| light housework/household jobs | 0 | 0 | 0 | 0 |
| climb stairs | 0 | 0 | 0 | 0 |
| heavy housework/household jobs | 0 | 0 | 0 | 0 |
| walk out of doors | 0 | 0 | 0 | 0 |
| go shopping | 0 | 0 | 0 | 0 |
| go to work | 0 | 0 | 0 | 0 |

All things considered, how would you describe your quality of life during the past week?

☐ excellent
☐ good
☐ moderately good
☐ neither good nor bad
☐ rather poor
☐ poor
☐ extremely poor

Would you please check whether you answered all questions?

Thank you for your help.

patient number _____

Scoring of the Rotterdam Symptom Checklist²

| physical symptom distress (23 items) | | psychological distress (7 items) | |
|--------------------------------------|---------------------------------|------------------------------------|-----------------------------|
| s1: | lack of appetite | s2: | irritability |
| s3: | tiredness | s4: | worrying |
| s5: | sore muscles | s6: | depressed mood |
| s7: | lack of energy | s9: | nervousness |
| s8: | low back pain | s11: | despairing about the future |
| s10: | nausea | s17: | tension |
| s12: | difficulty sleeping | s19: | anxiety |
| s13: | headaches | | |
| s14: | vomiting | | |
| s15: | dizziness | | |
| s16: | decreased sexual interest | | |
| s18: | abdominal (stomach) aches | | |
| s20: | constipation | | |
| s21: | diarrhoea | | |
| s22: | acid indigestion | | |
| s23: | shivering | | |
| s24: | tingling hands or feet | | |
| s25: | difficulty concentrating | | |
| s26: | sore mouth/pain when swallowing | | |
| s27: | loss of hair | | |
| s28: | burning/sore eyes | | |
| s29: | shortness of breath | | |
| s30: | dry mouth | | |
| activity level (8 items) | | overall valuation of life (1 item) | |
| act1: | care for myself (wash etc.) | all1: | all things considered |
| act2: | walk about the house | | |
| act3: | light housework/household jobs | | |
| act4: | climb stairs | | |
| act5: | heavy housework/household jobs | | |
| act6: | walk out of doors | | |
| act7: | go shopping | | |
| act8: | go to work | | |

Summation of item scores to compute scales

| | |
|-----------------------------------|--|
| physical symptom distress level = | sum of physical symptom scores $(s1+s3+s5+s7+s8+s10+s12+s13+s14+s15+s16+s18+s20+s21+s22+s23+s24+s25+s26+s27+s28+s29+s30)$; range = 23 to 92 |
| psychological distress level = | sum of psychological symptom scores $(s2+s4+s6+s9+s11+s17+s19)$; range = 7 to 28 |
| activity level impairment* = | sum of activity level items $act1+act2+act3+act4+act5+act6+act7+act8$ |
| overall valuation of life* = | all1 range = 1 to 7 |

Scale scores are obtained by summing scores of individual items.

Scores for the activity level scale were reversed in order to achieve ratings for the different indicators which are all in the same direction, i.e. a higher score implies more impairment.

Further, to compare results the scores were transformed into a 0-100 scale in such a way that the lower score implies better functioning or well being. Standardization of scales were performed in a systematic way based on the following formula:

$$\frac{\text{Raw scale score} - \text{minimal raw score}}{\text{Maximum} - \text{minimum score}} \times 100 = \text{transformed score}$$

Supplemental Appendix 2: FACT Colorectal Symptom Index (FCSI) and Scoring

The FACIT measurement system is a collection of questionnaires measuring health-related quality of life (QoL) for people with chronic illnesses.³ The FCSI is a nine-item disease-specific questionnaire with each item having a 5-response category ranging from 0 “not at all” to 4 “very much”. The questions relate to the patient’s QoL over the past 7 days and a lower score represents a greater QoL impairment.⁴

FCSI

Below is a list of statements that other people with your illness have said are important.

Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

| | | Not at all | A little bit | Some- what | Quite a bit | Very much |
|-----|---|---------------|-----------------|---------------|----------------|--------------|
| GP1 | I have a lack of energy | 0 | 1 | 2 | 3 | 4 |
| GP4 | I have pain | 0 | 1 | 2 | 3 | 4 |
| C2 | I am losing weight | 0 | 1 | 2 | 3 | 4 |
| C5 | I have diarrhea (diarrhoea) | 0 | 1 | 2 | 3 | 4 |
| GP2 | I have nausea | 0 | 1 | 2 | 3 | 4 |
| C1 | I have swelling or cramps in my stomach area | 0 | 1 | 2 | 3 | 4 |
| C6 | I have a good appetite..... | 0 | 1 | 2 | 3 | 4 |
| GF3 | I am able to enjoy life..... | 0 | 1 | 2 | 3 | 4 |
| GF7 | I am content with the quality of my life right now | 0 | 1 | 2 | 3 | 4 |

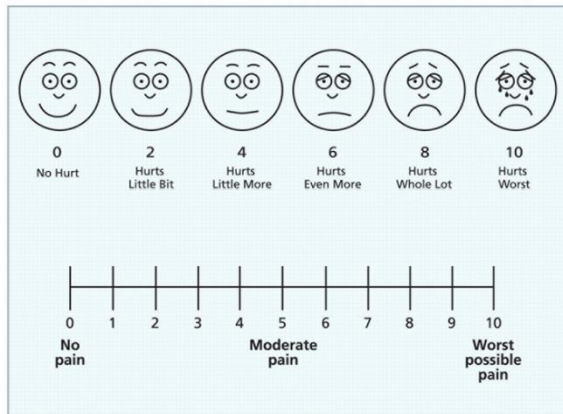
Scoring of the FCSI

The questionnaire is scored by summing the responses to produce a single total score. For at negatively stated items (GP1, GP4, C2, C5, CP2, C1), a higher score indicates more symptomology, so are reversed by subtracting the response from 4 before summing to calculate the total score. A higher total score indicates less symptomatology.

Supplemental Appendix 3: The Visual Analogue Scale for pain

The Visual Analogue Scale for pain uses numerical rating scales which are shown to be reliable and valid tools for subjective cancer pain measurement. Patients were asked to rate their pain on a 0 to 10 scale where 0 indicates "No pain" and 10 "The worst possible pain" to assess their background pain intensity referring to the previous 24 hours.⁵

Please rate the severity of your pain **over the last 24 hours**:



References for Supplemental Appendices

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